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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,425	11/21/2003	Jack W. Marple	SP-1754.1US	3401
20875	7590	11/15/2006	EXAMINER	
MICHAEL C. POPHAL EVEREADY BATTERY COMPANY INC 25225 DETROIT ROAD P O BOX 450777 WESTLAKE, OH 44145			RHEE, JANE J	
			ART UNIT	PAPER NUMBER
			1745	
DATE MAILED: 11/15/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/719,425

Applicant(s)

MARPLE, JACK W.

Examiner

Jane Rhee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27, 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Rejections Repeated***

1. The 35 U.S.C. 102(e)/103(a) rejection of claims 1-8,10-16,19-26 as being anticipated or obvious over Paulot et al. has been repeated for the reasons previously made in office action 6/1/2006.
2. The 35 U.S.C. 103(a) rejection of claim 9 unpatentable over Paulot et al. in view of Zhang et al. has been repeated for the reasons previously made in office action 6/1/2006.
3. The 35 U.S.C. 103(a) rejection of claim 17-18 unpatentable over Paulot et al. in view of Callahan et al. has been repeated for the reasons previously made in office action 6/1/2006.
4. The 35 U.S.C. 103(a) rejection of claim 27 unpatentable over Webber in view of Callahan et al. has been repeated for the reasons previously made in office action 6/1/2006.
5. The 35 U.S.C. 103(a) rejection of claim 29 unpatentable over Weber in view of Callahan et al. has been repeated for the reasons previously made in office action 6/1/2006.

As to the new limitation "the interfacial capacity of at least 720mAh/cm.sup.3" Webber discloses a metallic lithium anode material and an iron disulfide cathode active material (col. 3 line 46, col. 5 line 43). Since Webber discloses the same materials desired by the applicant, it is expected that the ratio of cathode interfacial capacity of an electrode assembly interfacial volume of at least 710 mAh/cm.sup.3

***New Objection***

6. The amendment filed 9/11/2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: that exceeded 170 degrees Celsius on the Impact Test.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Response to Arguments***

7. Applicant's arguments filed 9/11/2006 have been fully considered but they are not persuasive.

In response to applicant's argument that Paulot et al. does not inherently disclose that the cell has a ratio of a cathode interfacial capacity to an electrode assembly interfacial volume of at least 710 mAh/cm<sup>3</sup>, Paulot et al. discloses a metallic lithium anode material and an iron disulfide cathode active material (page 3 lines 18-20, page 4 line 28) as desired by the applicant. Applicant discloses in example 5 that the use of a thinner separator in Lot D allowed a 22% increase in cell interfacial capacity compared to Lot F. Lot D teaches a separator made from polyethylene with a thickness of 20um (see table 3 of applicant's spec.). Paulot et al. further discloses a polyethylene microporous membrane with an average thickness of less than 25um (page 4 paragraph 0023 and page 5 paragraph 0032) as desired by the applicant. Therefore, since Paulot et al. discloses the material desired by the applicant with a thickness of the

separator desired by the applicant, it is inherent that the cell has a ratio of a cathode interfacial capacity to an electrode assembly interfacial volume of at least 710 mAh/cm<sup>3</sup>.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane Rhee whose telephone number is 571-272-1499. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jane Rhee  
November 1, 2006



PATRICK JOSEPH RYAN  
SUPERVISORY PATENT EXAMINER